

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FULPS VINCENTINUS VERMEER

Appeal No. 2005-1832
Application No. 08/909,001

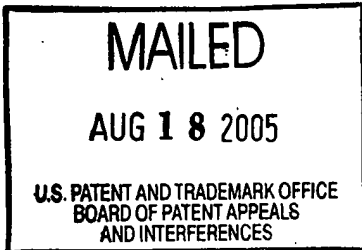
ON BRIEF

Before THOMAS, BARRY, and LEVY, Administrative Patent Judges.
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-11, which are all of the claims pending in this application.

We AFFIRM-IN-PART.



BACKGROUND

The appellant's invention relates to a wireless terminal adapted for detachable connection with a radio. The invention uses just one two lead cable that is capable of carrying both RF signals from a PCMCIA radio card to an antenna on a wireless terminal, and radio status signaling from the radio card to a display on the wireless terminal (specification, page 3). Claims 1 and 6 are representative of the invention, and are reproduced as follows:

1. A wireless terminal comprising:

an antenna;

a first visual indicator that indicates to a user of said wireless terminal when a radio is transmitting; and

a signal lead for carrying an RF signal from said radio to said antenna and from said antenna to said radio and for carrying a first baseband signal from said radio to said first visual indicator for activating said first visual indicator.

6. A wireless terminal comprising:

an antenna;

a first visual indicator that indicates to a user of said wireless terminal when a radio is receiving; and

a signal lead for carrying an RF signal from said radio to said antenna and from said antenna to said radio and for carrying a first baseband signal from said radio to said first visual indicator for activating said first visual indicator.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Mallien, II	4,122,304	Oct. 24, 1978
Stein	5,628,055	May 6, 1997
Kodama	5,805,998	Sep. 8, 1998 (filed Jul. 5, 1995)
Huttunen et al. (Huttunen)	5,903,850	May 11, 1999 (filed May 22, 1997)

Claims 1, 2, 4-7 and 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Huttunen in view of Kodama and Mallien.

Claims 3 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Huttunen in view of Kodama and Mallien, and further in view of Stein.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (mailed December 12, 2003) for the examiner's complete reasoning in support of the rejections, and to the brief (filed November 25, 2002) and reply brief (filed April 11, 2003) for the appellant's arguments thereagainst.

Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could

have made but chose not to make in the brief have not been considered. See 37 CFR § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer. Upon consideration of the record before us, we make the determinations which follow.

We begin with the rejection of claims 1, 2, 4-7 and 9-11 as being unpatentable over Huttunen in view of Kodama and Mallien. We observe at the outset that appellants divide the claims into three groupings (brief, page 7). However, although appellant groups claims 3 and 8 with the claims rejected under 35 U.S.C. § 103(a) as being unpatentable over Huttunen in view of Kodama and Mallien, because claims 3 and 8 additionally rejected over the teachings of Stein, we will separately address these claims. We turn first to claims 1, 2 and 4 (Group 1).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or

evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The examiner's position (answer, page 4) is that Huttunen does not disclose a first visual indicator that indicates to the user of the wireless terminal when the radio is receiving. To overcome this deficiency of Huttunen, the examiner turns to Kodama for a teaching of an indicator that indicates to the user of a wireless terminal when a radio is receiving. The examiner additionally asserts (id.) that Huttunen and Kodama do not disclose a second visual indicator that indicates to the user of the wireless terminal when a radio is transmitting. To overcome the deficiency of Huttunen and Kodama, the examiner turns to Mallien for a teaching of an indicator that indicates to the user of a wireless terminal when a radio is transmitting.

Appellants' position (brief, page 9) is that Mallien's indicator 120 does not indicate when the transmitter is actually performing a transmitting operation, but rather, indicator 120 is illuminated whenever the radio transmitter is on. Appellant notes, (id.), that in Mallien, when the user dials a number and

picks up the headset, the radio telephone scans for available channels, and illuminates green transmit indicator 120 if an available channel is found. If all of the channels are busy, a red busy indicator 153 is illuminated. Appellant adds, (id.), that when transmit indicator 120 indicates a channel is available, the user may depress the send button to transmit the dialed phone number. It is argued (brief, pages 9 and 10) that indicator 120 merely indicates when a phone number *may* be transmitted, not when the radio telephone is actually transmitting the dialed number. It is further asserted (brief, page 10) that nothing in the references teaches or suggests carrying a baseband signal from a radio to a visual indicator, and that Huttunen fails to disclose that line 10 carries baseband signals from a radio to an indicator. It is asserted (brief, page 11) that in Huttunen, the only disclosure that reasonably suggests the coaxial cable 6 carries signals to a visual indicator is the teaching that a digital status signal may be received from an ignition switch to the mobile phone 1. Appellant further asserts (brief, page 12) that even assuming that the claim limitations were taught, that the examiner has failed to provide the required teaching, suggestion or motivation to combine the cited prior art references.

From our review of Huttunen, we find that the reference is directed to an interface for connecting a mobile phone to external signals (col. 1, lines 6 and 7). The mobile phone comprises an RF signal interface containing a connector over which input and output RF signals pass on a coaxial line connected to the connector. The interface is for at least some of digital input and output signals, comprising audio signals, control signals and data signals (col. 2, lines 7-10). The interface unit is connected to one end of a coaxial line opposite to the mobile phone. The interface unit separates RF signals and digital signals received on the coaxial line (col. 2, lines 19-23).

Huttunen further discloses (col. 3, lines 20-30) that digital signals include audio, control and data signals, which are received and connected over connector 3 and coaxial line 6. Moreover, Huttunen discloses (col. 6, lines 51-56) that the digital signals are transmitted and received through conductor 3, over the same coaxial conductor 6 over which the input and output RF signals pass.

We find from the disclosure of Huttunen, that although both RF and digital signals are sent over the coaxial connector 6, that Huttunen does not disclose the use of a visual indicator to

indicate to a user that the radio is operating. As noted by appellant (brief, page 11)

"[t]he only disclosure of Huttunen that reasonably suggests the coaxial cable 6 carrying signals to a visual indicator is the teaching that a digital status signal may be received from an ignition switch to the mobile phone 1."

The disclosure of a signal detecting the state of the ignition switch of the vehicle (col. 1, lines 36-46) is not a disclosure of a visual indicator that the radio is transmitting.

Turning to Kodama, we observe that although the examiner relied upon Kodama for a teaching of a visual indicator that indicates to a user that the radio is receiving, that claim 1 does not recite an indicator which indicates that the radio is receiving. Thus, it is unclear as to why the examiner relied upon Kodama, and consider Kodama to be cumulative to the teachings of Huttunen, with respect to claim 1. Turning to Mallien, from our review of the reference, we find that Mallien is directed to control circuitry for a radio telephone (col. 1, lines 7-10). Mallien discloses (col. 2, lines 20-22) that the handset computer enables the first indicating means to provide a visual indication of the dialed number. It is disclosed (col. 6, lines 45-68) that in automatic operation to place a call, the telephone number is entered from the keypad 21. Next, the

handset 10 is released from cradle 11, activating the hookswitch 50. The radio telescope automatically scans the available channels. If an available channel found, the green transmit indicator 120 will come on. If all of the channels are busy, the red busy indicator 153 will come on. Once a dial tone is received over an available channel, the send pushbutton 134 on pushbutton pad 21 is depressed to transmit the dialed phone number. The dialed number is transferred from the handset computer 20 to the cradle computer 40 and outputted by the cradle computer 40 as shown in figure 6. It is further disclosed (col. 3, lines 45-48) that a push-to-talk pushbutton 136 (figure 1) is present in the handset 10 for manually activating the radio transmitter, the activation being shown by the transmit indicator 120 in figure 3B.

Mallien additionally discloses (col. 8, lines 16-26) that when an incoming call is detected, the ring signal is gated to the handset speaker 25 and alerts one (the user) of an incoming call. The ring signal is removed when the handset 10 is removed from the cradle 11 to answer the call. The green transmitter indicator 120 is illuminated when the handset 10 is picked up, and conversation can take place.

From the disclosure of Mallien, although we agree with appellant (brief, page 9) that Mallien indicates to a user when the other party's phone number may be transmitted, we find that when a channel is available and the green transmit light comes on and the user depresses the send button, the indicator light indicates to the user that the radio is transmitting. As broadly worded, we find nothing in the language of claim 1 that would preclude the indicator light from also being on before the radio is transmitting. In addition, from the disclosure in col. 3, lines 45-48 that in the manual activation of the radio transmitter, the activation is shown by the transmit indicator 120, we find that upon pushing the push-to-talk button and the transmit indicator light coming on that the subsequent conversation by the user, including transmitting of the conversation, will take place while the transmit indicator 120 is on. Moreover, from the disclosure on col. 8, lines 20-27 that when an incoming call is detected, the transmit indicator 120 is illuminated when the handset is picked up, and the conversation can take place, we find that the transmit indicator light 120 is illuminated when the conversation, including transmission of the conversation, is a disclosure of a visual indicator that indicates to a user of the wireless terminal that the radio is

transmitting. We further find that from the silence of Huttunen as to whether there is any indication provided to the user when the radio is transmitting, and the disclosure of Mallien of having a transmit indicator provide a visual representation of when the transmit operation is activated and a conversation is taking place, we find that an artisan would have been motivated to provide the wireless terminal of Huttunen with an indicator that indicates to the user of the wireless terminal, when the radio is transmitting, as set forth by the examiner (answer, page 5).

We are not persuaded by appellant's assertion (brief, page 100) that nothing in Huttunen, Kodama, or Mallien taken alone or in combination, teaches or suggests carrying a baseband signal from a radio to a visual indicator because in Mallien, the transmit indicator is enabled by the is enabled by the line key 105 or push-to-talk output line 121 from the cradle computer 40. Appellant adds that although Huttunen discloses that line 10 carries baseband signals from a radio, that Huttunen fails to disclose that line 10 carries baseband signals from a radio to an indicator.

At the outset, we note that claim 1 does not recite how the transmit indicator is enabled. Rather, as broadly recited, the

claim requires that the activation signal for the transmit indicator is carried by the signal lead (cable). We agree with appellant (brief, page 10) that Huttunen fails to disclose that line 10 carries baseband signals from a radio to an indicator. However, Huttunen was not cited for providing the visual indicator, Mallien is relied upon for this feature. From the disclosure of Huttunen, we find no explicit mention of "baseband signals". However, from the disclosure of Huttunen, we find no disclosure of complex modulation or frequency division multiplexing of the signals that would convert the baseband signals to broadband signals. Thus, we agree with the examiner that the digital signals of Huttunen are baseband signals. Upon modification of Huttunen with a transmit indicator as taught by Mallien, the activation signal for the visual indicator would be carried by cable 6 (signal lead) because in Huttunen, both the RF and digital signals are carried by cable 6.

From all of the above, we conclude that the teachings and suggestions of Huttunen and Mallien would have suggested the limitations of claim 1, and find Kodama to be cumulative to the teachings of Huttunen and Mallien. Accordingly, the rejection of claim 1, and claims 2 and 4, which fall with claim 1 (brief, page 4) is affirmed.

We turn next to claims 6, 7 and 9. Claim 6 is representative of the group. Claim 6 is similar to claim 1, except that the visual indicator is for receiving, instead of transmitting. We make reference to our findings, supra, with respect to Huttunen. Turning to Kodama, from our review of the reference, we find that in Kodama, the LED 21E, relied upon by the examiner for the claimed receiving visual indicator, does not indicate that the radio is receiving a signal, but rather, the radio signal transmitted to slave unit 200 indicates that the activation of the radio transceiver and the controller are being suspended because the voltage of the auxiliary battery has dropped below a given voltage. Although claim 6 does not recite the type of signals are received, we agree with appellant (brief, page 15) that LED 21E only indicates to a user that the auxiliary power source 24a has a low voltage level. Because LED 21E of Kodama only indicates the voltage level of the auxiliary power supply, and does not indicate when the radio is receiving, we find that Kodama does not make up for the teachings of Huttunen. turning to Mallien, we make reference to our findings, supra, with the teachings of Huttunen and Mallien. From the disclosure of Mallien (col. 8, lines 16-26) that when an incoming call is detected, the green transmit indicator 120 is illuminated when

the handset is picked up, and conversation can take place, we find that the conversation taking place includes speech from both [parties to the conversation], and that the green transmit light operates both when the radio telephone is transmitting and receiving. Thus, although Mallien only refers to transmitting, in actuality, the term refers to both the transmitting and receiving of signals. Accordingly, we find that the teachings of Mallien and Huttunen would have suggested the language of claim 6. The rejection of claim 6, and claims 7 and 9, which fall with claim 6 (brief, page 8) is therefore affirmed.

We turn next to claims 5, 10 and 11 (Group 3). Independent claim 11 is representative of the group. We reverse the rejection of claim 11 because the claim requires two visual indicators. One indicates when the radio is transmitting. The second indicates when the radio is receiving. Because the combined teachings of Huttunen, Kodama and Mallien suggest a single visual indicator which operates during the conversation, we find no teaching of disclosure of having a separate visual indicator for each of transmitting and receiving. Accordingly, the rejection of claims 5, 10 and 11 under 35 U.S.C. § 103(a) is reversed.

We turn next to the rejection of claims 3 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Huttunen in view of Kodama, Mallien and Stein. Claims 3 and 8 have not been separately argued by appellant. we select claim 3 as representative of the group. Claim 3 recites that the radio is integral to a PC radio card. The examiner's position is set forth on page 5 of the answer. From the disclosure of Stein of integral PC radio card 131 (figure 10) and the lack of any arguments by appellant, we are not persuaded of any error on the part of the examiner, and affirm the rejection of claims 3 and 8 under 35 U.S.C. § 103(a).

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-4, 6 and 7-9 under 35 U.S.C. § 103 is affirmed. The decision of the examiner to reject claims 5, 10 and 11 under 35 U.S.C. § 103(a) is reversed.

AFFIRMED-IN-PART

BOARD OF PATENT
APPEALS
AND
INTERFERENCES

Appeal No. 2005-1832
Application No. 08/909,001

Page 18

HARNESS, DICKY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195